

# Mineral Industry Surveys

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## MANGANESE IN APRIL 2000

In April, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was 40,900 metric tons, or virtually the same as that for the previous month, according to the U.S. Geological Survey. This brought the year-to-date total to 158,000 tons. The figures for April increase to 45,100 tons and 174,000 tons when estimates for annual respondents are added on the basis of 1998 data. Corresponding industry stocks of ore at the end of the month were 210,000 tons, which includes an estimate for annual respondents on the basis of 1998 data. This also was virtually the same as the corresponding figure for stocks at the end of March.

Data for domestic consumption and stocks of manganese ferroalloys and metal in 1999 will appear in a subsequent monthly report.

Foreign trade data for April will appear in a subsequent report. The data for March tabulated in this report indicate that for silicomanganese the quantity of imports was the greatest since May 1998. By comparison with receipts during recent years, quantities were comparatively large for those from India, Kazakhstan, Romania, and South Africa. Also, imports of silicomanganese from Bulgaria may have been the first ever from that country. Among exports, those of metal were the lowest in at least 17 years.

**Note:** For early availability, the trade data appearing in this report are being placed on MINES FaxBack in preliminary form. The data for March were placed on FaxBack as of May 25. The FaxBack document number for the April trade data will be 420204.

The Defense National Stockpile Center of the Defense Logistics Agency, U.S. Department of Defense, reported for April a cash disposal from the National Defense Stockpile of 1,361 tons of natural battery-grade ore, all to American Minerals, Inc., King of Prussia, PA.

Ralston Purina Co., St. Louis, spun off its Battery Products business as an independent company, Energizer Holdings, Inc.

This was done in accordance with a schedule for the spin-off announced by Ralston Purina in June, 1999 (American Metal Market, 2000; Ralston Purina Co., 2000, p. 1, 8). Energizer is a manufacturer of a variety of batteries, including manganese-containing dry cells of the carbon-zinc and alkaline types. Energizer's headquarters also are in St. Louis, and the Eveready Battery Co. is its U.S. operating subsidiary.

Zemex Corp., Toronto, Canada, sold its Pyron Corp. and Pyron Metals Powders, Inc., subsidiaries to Sweden's Höganäs AB. Plants involved in the sale are located in New York, Pennsylvania, and Tennessee (Skillings Mining Review, 2000). Manganese sulfide has been among the powder metallurgy products manufactured by Pyron Corp. In 1995, Höganäs purchased the manganese sulfide and ferrophosphorus powders business of the Niagara Falls, NY, plant of Elkem Metals Co. Subsequently, Höganäs transferred its manufacture of these powders to Sweden.

### Update

The International Manganese Institute, whose office is in Paris, France, has launched a new website to facilitate dissemination of information about production and use of manganese and to provide an easy way of accessing publications of the Institute. The URL address of the home page for this website is <<[<http://www.manganese.org>](http://www.manganese.org)>>.

### References Cited

- American Metal Market, 2000, Bunny replacing Oregon Steel: American Metal Market, April 4, p. 5.
- Ralston Purina Co., 2000, Ralston Purina Co. annual report 1999: St. Louis, Ralston Purina Co., 52 p.
- Skillings Mining Review, 2000, Zemex sells metal powders division to Höganäs of Sweden: Skillings Mining Review, v. 89, no. 19, May 6, p. 10.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
1999: 3/						
March	22,100	40,100	62,200	75	1,500	1,570
January-March	60,500	129,000	190,000	183	4,500	4,690
2000:						
January	17,200 4/	27,600 4/	44,800	144	926	1,070
February	25,900 4/	38,100	64,000	202	1,380	1,580
March	17,700 4/	56,300 4/	74,000	383 4/	1,000	1,390
Total	60,800	122,000	183,000	729	3,310	4,040

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ Data may include revisions by the Bureau of the Census.

4/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN MARCH 2000 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	4,510	3,000	\$2,210,000	11,800	7,830	\$5,680,000
Bulgaria	2,450	1,590	1,030,000	2,450	1,590	1,030,000
France	--	--	--	1,350	918	636,000
India	8,820	5,740	3,470,000	13,100	8,430	5,380,000
Kazakhstan	6,250	4,200	3,410,000	14,900	10,100	7,260,000
Mexico	4,630 2/	1,770 2/	2,210,000 2/	15,300	8,740	6,980,000
Norway	--	--	--	1,400	848	953,000
Romania	4,040	2,640	1,830,000	4,040	2,640	1,830,000
South Africa	16,600	11,200	7,630,000	29,800	20,100	13,400,000
Venezuela	--	--	--	2,400	1,580	1,070,000
Total	47,200	30,100	21,800,000	96,500	62,800	44,200,000
Total, general imports	47,200	30,100	21,800,000	96,500	62,800	44,200,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN MARCH 2000 1/

(Metric tons)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Low carbon:						
China	40	36	\$45,100	517	477	\$586,000
Italy	100	89	141,000	1,360	1,180	1,520,000
Japan	2,510	2,130	2,000,000	4,020	3,350	3,160,000
Mexico	--	--	--	30	27	50,600
Norway	--	--	--	21	17	10,300
South Africa	220	208	355,000	450	426	733,000
Ukraine	--	--	--	240	228	275,000
Total, low carbon	2,870	2,470	2,540,000	6,640	5,700	6,330,000
Total, general imports of low carbon	2,870	2,470	2,540,000	6,640	5,700	6,330,000
Medium carbon, 1%-2% C:						
Mexico	2,250	1,800	1,320,000	6,830	5,490	4,100,000
South Africa	1,500	1,220	880,000	4,000	3,270	2,340,000
Total, m.c., 1%-2% C	3,750	3,030	2,200,000	10,800	8,770	6,440,000
Total, general imports of m.c., 1%-2% C	3,750	3,030	2,200,000	10,800	8,770	6,440,000
Medium carbon, 2%-4% C:						
South Africa	--	--	--	20	16	10,700
Total, m.c., 2%-4% C	--	--	--	20	16	10,700
Total, general imports of m.c., 2%-4% C	--	--	--	20	16	10,700
High carbon:						
Australia	5,850	4,480	2,120,000	9,170	7,010	3,360,000
Canada	--	--	--	36	28	26,200
France	326	255	123,000	12,000	9,420	5,040,000
South Africa	18,300	14,200	6,760,000	31,100	24,200	11,300,000
Total, high carbon	24,500	18,900	9,000,000	52,300	40,600	19,700,000
Total, general imports of high carbon	24,500	18,900	9,000,000	52,300	40,600	19,700,000
Grand total	31,100	24,400	13,700,000	69,800	55,100	32,500,000
Grand total, general imports	31,100	24,400	13,700,000	69,800	55,100	32,500,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 4  
U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN MARCH 2000 1/ 2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Australia	--	--	1,290	722	1,290	722
Brazil	7,030	3,250	--	--	7,030	3,250
Gabon	--	--	18,400	9,380	18,400	9,380
Mexico	1,640 3/	1,500 3/	--	--	1,640	1,500
Total	8,670	4,750	19,600	10,100	28,300	14,800
Year to date:						
Australia	--	--	1,290	722	1,290	722
Brazil	7,030	3,250	--	--	7,030	3,250
Gabon	25,400	11,200	71,900	35,800	97,300	47,000
India	18	112	--	--	18	112
Mexico	2,480	1,870	--	--	2,480	1,870
Morocco	--	--	20	11	20	11
Total	35,000	16,400	73,200	36,500	108,000	52,900

-- Zero.

1/ Quantities for general imports and imports for consumption are identical.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN MARCH 2000 1/

(Metric tons, gross weight, unless otherwise specified)

Source	Manganese dioxide				Manganese metal			
	Quantity	Customs value	Year to date		Unwrought		Other	
			Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	2,790	\$3,770,000	7,430	\$10,300,000	--	--	--	--
Belgium	91	149,000	166	277,000	--	--	--	--
China	--	--	42	46,900	200	594	--	75
France	--	--	--	--	--	--	10	31
Germany	8	18,800	25	110,000	26	81	7	8
Greece	98	129,000	148	195,000	--	--	--	--
Ireland	814	1,130,000	2,430	3,370,000	--	--	--	--
Japan	--	--	--	--	--	--	5	5
Netherlands	--	--	--	--	69 2/	69	10	23
South Africa	939	1,330,000	2,780	3,920,000	1,270	3,000	--	--
Taiwan	--	--	--	--	--	--	18	18
United Kingdom	--	--	111	164,000	95	190	--	--
Venezuela	--	--	--	--	--	--	18	18
Total	4,740	6,530,000	13,100	18,400,000	1,660	3,930	68	177
Total, general imports	4,740	6,530,000	13,200	18,500,000	1,680	3,950	68	177

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

Note: Imports for consumption of metallic manganese waste and scrap totaled 13 tons, all of which was from Canada, to give a year-to-date total of 65 tons.

Source: Bureau of the Census.

TABLE 6  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2000 1/

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal 2/	
	March	Year to date	March	Year to date	March	Year to date	March	Year to date
Australia	--	142	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	--	19
Brazil	22	22	--	--	--	--	--	--
Canada	614	1,160	721	2,090	212	849	58	253
Chile	--	--	--	--	--	--	--	4
Colombia	--	--	--	--	--	--	--	8
Finland	--	--	--	--	--	--	--	12
Hong Kong	--	--	--	--	--	--	1	1
Italy	--	--	--	--	--	--	9	18
Japan	--	--	--	--	--	--	--	46
Korea, Republic of	--	--	--	--	--	--	--	3
Mexico	130 3/	130	8	59	57	257	26	62
Netherlands	--	--	--	--	--	--	18	18
Taiwan	--	--	--	--	--	--	21	30
United Kingdom	--	--	--	--	--	--	(4/)	(4/)
Total	766	1,460	730	2,150	269	1,110	134	475

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

4/ Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 146 tons, all of which went to Canada, to give a year-to-date total of 515 tons.

Source: Bureau of the Census.

TABLE 7  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN MARCH 2000, BY CLASS 1/

Class	Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands) 2/	Year to date		
				Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands) 2/
Imports for consumption:						
Manganese oxides other than dioxide	67	\$142	South Africa 36; \$91	231	\$386	South Africa 72; \$177
Sulfates, basket category, including manganese sulfate	3,480	2,230	Mexico 2,280; \$1,000	11,300	6,090	Mexico 5,810; \$2,760
Potassium permanganate	216	431	Czech Republic 67; \$131	371	711	Czech Republic 155; \$301
Manganites, manganates, and other permanganates	--	--	XX	--	--	XX
Exports:						
Manganese dioxide	252	335	Canada 132; \$50	849	901	Canada 484; \$199
Manganese oxides other than dioxide	676	955	United Kingdom 304; \$451	2,250	2,530	Canada 962; \$377
Sulfates, basket category, including manganese sulfate	2,860	1,300	Canada 2,410; \$668	6,150	2,890	Canada 5,230; \$1,660
Potassium permanganate	111	223	Germany 60; \$112	331	614	Mexico 92; \$122
Manganites, manganates, and other permanganates	3	25	Singapore 3; \$23	34	242	United Kingdom 23; \$155

XX Not applicable. -- Zero.

1/ Data are rounded to no more than three significant digits.

2/ For imports, Customs value; for exports, f.a.s. value.

Source: Bureau of the Census.